

Online Research @ Cardiff

This is an Open Access document downloaded from ORCA, Cardiff University's institutional repository: <https://orca.cardiff.ac.uk/id/eprint/94042/>

This is the author's version of a work that was submitted to / accepted for publication.

Citation for final published version:

Mandal, Anthony ORCID: <https://orcid.org/0000-0001-5719-6145> 2016. Digital humanities. The Year's Work in Critical and Cultural Theory 24 (1) , pp. 317-342. 10.1093/ywcct/mbw015 file

Publishers page: <http://dx.doi.org/10.1093/ywcct/mbw015>
<<http://dx.doi.org/10.1093/ywcct/mbw015>>

Please note:

Changes made as a result of publishing processes such as copy-editing, formatting and page numbers may not be reflected in this version. For the definitive version of this publication, please refer to the published source. You are advised to consult the publisher's version if you wish to cite this paper.

This version is being made available in accordance with publisher policies.

See

<http://orca.cf.ac.uk/policies.html> for usage policies. Copyright and moral rights for publications made available in ORCA are retained by the copyright holders.



Digital Humanities

ANTHONY MANDAL

The digital humanities continue to grow within the academy, moving from earlier concentrations on tools development towards more sustained conceptual encounters with our increasingly digital culture. A number of recent publications have introduced the key terms of reference for digital humanistic practice to those unacquainted or uninitiated with current developments in the field. Nevertheless, the longstanding paucity of engagement with theory in the digital humanities has been critiqued as constructing a field that is fundamentally instrumental and un-self-reflexive. This chapter considers seven publications from 2015 that go some way to addressing this lacuna in their demonstration of digital humanities scholarship as not only open to, but capable of, persuasive and nuanced explorations of theory. This manifests itself in various ways: presenting the digital humanities as an inter- or transdisciplinary practice that reconfigures and replenishes the broader traditions of *studia humanitatis*; in the form of a new ‘digital rhetoric’ that brings production and usage ever closer; or as part of an emergent ecology of ‘knowledge machines’ that draw on the ‘mathematization’ of information. The chapter also considers works that analyse the role of digital media in wider culture, particularly through the affordances and constraints of the social media platforms of Web 2.0.

After a long period as an outlier within the academy, there has never been a better time for the digital humanities than now. A cursory search on Google.com on 4 April 2016 for the term ‘digital humanities’ yields 2.1 million hits—this is a field that is beyond burgeoning. The results that cluster in the top ten of Google’s mysterious search algorithms are especially revealing about the contours of the field. First comes a lengthy Wikipedia entry, providing a rich and detailed history of the subject, supplemented by an extensive bibliography. This is

accompanied by a cluster of portals, aggregators and publications: Digital Humanities Now (2nd); the Association for Computers and the Humanities' 'What Is Digital Humanities?' page (3rd); Matthew Gold's *Debates in the Digital Humanities* 'unbound book' (6th); the What Is Digital Humanities? carousel, featuring different definitions with every refresh (7th); and George Mason University's *Journal of Digital Humanities* (8th). Appearing alongside are a number of institutional sites: Stanford Humanities Center's Digital Humanities microsite (4th); UCLA's Center for Digital Humanities (5th); the supernumerary Alliance of Digital Humanities Organizations (9th). Appearing last, perhaps tellingly, in our top ten is Adam Kirsch's provocative 2014 essay for *New Republic*, 'Technology Is Taking Over English Departments', subtitled 'The false promise of the digital humanities'—to which I shall return shortly.

That the field of digital humanities (DH) is rich, varied and dynamic is clear. Yet, the term itself is one of relatively recent invention, having first entered common scholarly usage around the mid-Noughties. Before this, the preferred term had been 'humanities computing', a term displaying a venerable pedigree that can be traced to the 1950s. Humanities computing focused principally on the creation of heuristic tools for literary, historical and linguistic analysis during the 1960s and 1970s. This was followed by new initiatives in digital text encoding in succeeding decades (the Oxford Text Archive, founded in 1976, is an early example). The exponential growth of the World Wide Web in the 1990s saw humanities computing deliver the publication of manifold digital resources, such as the Perseus Digital Library, the Rosetti Archive, the Blake Archive and the Women Writers Project. This process, in turn, opened the fruits of humanities computing available to a wider scholarly (and public) audience. In 2004, the publication of Blackwell's *Companion to Digital Humanities*, edited by Susan Schriebman, Ray Siemens and John Unsworth, encoded the new

term ‘digital humanities’, suggesting a wider cultural relevance beyond tools development and text markup (although both nevertheless feature heavily in the collection).

Labels might be taken to suggest a consensus regarding what the DH comprise, but the field’s patchwork history generates a problem of definition. Are the DH focused on tool development and service provision to support other disciplines? Do they comprise a stable transdisciplinary collection of hermeneutic approaches to other humanistic disciplines, such as literary and historical studies? Evidently, the DH seem to signal *something* quite specific and distinct from ‘traditional’ humanities scholarship, while embracing a wide range of possible scholarly practices, from textual encoding to theorizing social media. As Matthew K. Gold observes, such attempts at definition represent ‘a foray into contested terrain, since there is wide disagreement and confusions about the contours of the field’ (‘Digital Humanities’, in M.-L. Ryan *et al.*, eds. *The John Hopkins Guide to Digital Media* (JHUP [2015]) p. 143). Part of the ontological challenge emerges from whether DH scholarship should incorporate only a narrow field of specialist humanities computing practices that build on ‘making’ and ‘coding’ or any humanistic scholarship that employs digital affordances (so-called Big Tent DH).

Perhaps one of the most useful definitions is less a definition than a statement of intent—Todd Pressner and Jeffrey Schnapp’s foundational *Digital Humanities Manifesto 2.0* (2009):

Digital Humanities is not a unified field but **an array of convergent practices** that explore a universe in which: a) print is no longer the exclusive or the normative medium in which knowledge is produced and/or disseminated; instead, print finds itself absorbed into new, multimedia configurations; and b) digital tools, techniques, and media have altered the production and dissemination of knowledge in the arts,

human and social sciences. (<http://manifesto.humanities.ucla.edu/2009/05/29/the-digital-humanities-manifesto-20/>)

The emphasis on ‘convergence’ elegantly intertwines but avoids collapsing two aspects of the DH: the paradigm drift in the *mediation* of cultural communication and the *creation* of new digital tools that effect/reflect that transformation. An interesting response to these imbrications is offered by Geoffrey Rockwell, whose ‘Is Humanities Computing an Academic Discipline?’ posits a rich ecology of multiple DH fields (in M. Terras *et al.*, *Defining Digital Humanities: A Reader* (Ashgate [2013]) pp. 13–33). Most useful, perhaps, is Rafael Alvarado’s declaration that the DH function as ‘a social category, not an ontological one’: ‘Instead of a definition, we have a genealogy, a network of family resemblances among provisional schools of thought, methodological interests, and preferred tools, a history of people who have chosen to call themselves digital humanists’ (‘The Digital Humanities Situation’, rptd in M.K. Gold, ed. *Debates in the Digital Humanities* (UMinnesotaP [2012]) p. 50).

These difficulties notwithstanding, a number of noteworthy essay collections have in recent years provided overviews of the state of the DH, which suggests a period of maturation in the field underpinned by reflections on past history and proposals for future directions. David Berry’s *Understanding Digital Humanities* (Palgrave [2012]) gathers together sixteen essays that collectively presage a ‘post-Humboldtian’ academy transformed by computational affordances, which the editor observes are radically redefining the meaning and processes of humanistic research. Berry posits three ‘waves’ in the DH: the first involved building the field’s infrastructure through remediation of primarily printed materials; the second expands ‘the notional limits of the archive’ to include ‘born-digital’ materials such as electronic literature and interactive fiction; the third is ‘concentrated around the underlying computability of the forms held within a computational medium’ (p. 4). Inflecting the

dialectical nature of the field, Matthew K. Gold's *Debates in the Digital Humanities* (UMinnesotaP [2012]) offers nearly fifty essays and blog posts covering a range of categories collocated with the DH: Defining, Theorizing, Critiquing, Practising, Teaching and Envisioning the Future. As noted earlier, Gold's collection is also available as an 'unbound book' online (<http://dhdebates.gc.cuny.edu>), as well as being followed up by new volumes to be issued on an annual basis. Aiming more squarely at the student reader, *Defining Digital Humanities: A Reader*, edited by Melissa Terras *et al.* (Ashgate [2013]), reprints articles and blogs from major figures in the DH in order to provide core reading for those wishing to acquaint themselves with the field. A similar collection is *The Johns Hopkins Guide to Digital Media* (JHUP [2015]), edited by Marie-Laure Ryan *et al.*—a handy A-to-Z compendium of short essays that cover topics ranging from 'Algorithm', 'Code' and 'Materiality' to 'Cognitive Implications of New Media', 'Self-Reflexivity in Electronic Art' and 'Writing under Constraint'. *Understanding, debating, defining, guiding*: these terms suggest ways of inducting the reader into the complexities (and contradictions) of the field, primarily as points of ingress for curious (likely trepidatious) neophytes. Paul Longley Arthur and Katherine Bode's *Advancing the Digital Humanities: Research, Methods, Theories* (Palgrave [2014]) explicitly seeks to push beyond the attempts to define, which have been 'internecine' and 'public' (p. 3). Instead, the editors explore topics that traverse four 'key fault lines' (p. 4) of the DH: Transforming Disciplines (literature and history); Media Methods (old and new media); Critical Curation (collections and archives); Research Futures (past troubles and new possibilities).

It is difficult to resist the view that studies of the 'digital humanities' over the last decade since the publication of the Blackwell *Companion* have tended to focus on the first part of that compound. The tantalizing affordances of the digital age have combined with a cornucopia of grant-funded DH projects to prioritize computational innovations over the

humanistic traditions with which they imbricate. Promisingly, recent years have witnessed a more sustained consideration of the ‘humanities’ as the fulcrum for DH research and practice, resulting in less instrumentalist perspectives. Fuller self-reflection by scholars, attentive to the wider academic and cultural context, suggests ways in which the opportunities offered by the DH are themselves accompanied by crucial ontological challenges. Berry persuasively predicts that ‘[c]omputational techniques could give us greater powers of thinking, larger reach for our imagination and, possibly, allow us to reconnect to political notions of equality and redistribution’ (*Understanding Digital Humanities*, p. 11). However, this positivism is qualified by Johanna Drucker’s equally convincing assertion that ‘[t]he theoretical underpinnings of humanistic interpretation are fundamentally at odds with the empirical approaches on which certain conventions of temporal and spatial modeling are based’ (in Gold, p. 90). Abandoning the nuance of Drucker’s position, Adam Kirsch’s strident critique of the DH—to which I referred at the start of this chapter—sees the heuristic pragmatism of the field as inimical to traditional humanistic praxis:

Humanistic thinking does not proceed by experiments that yield results; it is a matter of mental experiences, provoked by works of art and history, that expand the range of one’s understanding and sympathy. It makes no sense to accelerate the work of thinking by delegating it to a computer when it is precisely the experience of thought that constitutes the substance of a humanistic education. (*New Republic* [2 May 2014] <<https://newrepublic.com/article/117428/limits-digital-humanities-adam-kirsch>>)

Certainly, the DH have been somewhat preoccupied with process or making at the expense of a robust engagement with theoretical perspectives (e.g. race, gender, the postcolonial, biopower). Gary Hall has critiqued digital humanists’ resistance to theory as a fundamental flaw in the field:

The problem is, though, without such reflexive critical thinking and theories many of those whose work forms part of this computational turn find it difficult to articulate exactly what the point of what they are doing is [...] ('Has Critical Theory Run Out of Time for Data-Driven Scholarship?', in Gold, p. 128)

Todd Presner's 'Critical Theory and the Mangle of Digital Humanities' notes that

the digital humanities has distinguished itself as an enterprise deeply informed by design, making, and building, even developing 'a materialist epistemology' [...], something that seems to place it at odds with the established notions of humanistic inquiry characterized by 'reading,' 'interpreting,' and 'critiquing.' (in P. Svensson and D. T. Goldberg, eds. *Between Humanities and the Digital* (MITP [2015]) p. 55)

Without such critical reflexiveness, the DH are in danger of slipping into instrumentalism and the corporatization of humanistic enquiry as an emergent knowledge economy. Presner identifies the first challenge for the DH is 'to develop both critical and genealogical principles for exposing its own discursive structures and knowledge formations at every level of practice' (p. 60). To a degree, this lacuna is starting to be addressed by a growing number of theoretically inflected approaches to the DH—not least the media archaeological approaches taken by scholars like Jussi Parikka, Matthew Kirschenbaum and Lisa Gitelman, the exploration of the 'computational turn' through coding theory by David Berry and the 'distant reading' models proposed by Franco Moretti and Matthew Jockers. It is also encouraging to see a number of publications that directly address the broader propositions of critical theory. David Berry's *Critical Theory and the Digital* (Bloomsbury [2014]) applies the lessons of the Frankfurt school to the DH, fluidly drawing together readings from Adorno, Heidegger and Stiegler. Similarly, a special issue of *Differences* (25:i [Spring 2014]), 'In the Shadow of the Digital Humanities', presents a range of engaging perspectives on the

intersections between the DH and feminist theory, split into two complementary sections: ‘The Shadow Digital Humanities’ and ‘Shadowing the Digital Humanities’.

The present chapter considers works that carry this promising momentum forward in revealing, stimulating and provocative ways. A recurrent theme across a number of studies published in the past year has been the relationship of the DH to the broader humanistic context, both longitudinally and within the today’s university *habitus*. A number range across interdisciplinarity and boundary work, the recalibration of classical rhetorical enquiry for digital culture and the emergence of so-called knowledge machines in the wake of big data, open access and culturomics. Other scholars reviewed in this chapter attempt to locate the DH more theoretically, looking at paradigms of production and consumption in the post-Kantian academic system. I have also sought to consider work that has examined the broader ramifications of the digital on our increasingly networked lives through increasingly converging and ubiquitous social media and ‘post-PC’ mobile technologies.

An excellent account of the current state of the field is provided by Eileen Gardiner and Ronald G. Musto’s *The Digital Humanities: A Primer for Students and Scholars* (CambridgeUP [2015]). The first seven chapters focus on the practical aspects of the DH (covering, for example, organization, tools and environments), while the last four consider what the authors term ‘Meta-Issues’ in the DH. Gardiner and Musto note the current tangle facing attempts at definition, to which I alluded earlier, observing that the DH are both easy to write about, because they are now part of our culture, and difficult, because they have become normalized within scholarly discourse. The particular point of entry for the volume is the debate regarding whether digital transformations are aiding, transforming or undermining the humanistic mission. Despite its credentials as a scholarly handbook, the volume thoughtfully positions the DH within the broader liberal traditions of *studia humanitatis* that emerged via the Petrarchan university system. The shift in the nineteenth and early twentieth

centuries away from liberal arts traditions towards Rankean empiricism transformed the academy into the modern research university focused on disciplinary specificity and specialist publication, separating the academic from the public. The DH, according to Gardiner and Musto, offer an opportunity to reconnect the scholar to the wider public, as both traditional and digital approaches turn back to ‘the core function of the humanities, which has always been to represent remote human experience in forms conveyable to our present understanding’ (p. 60). If anything, the prime motivator in this process of reconnection was not the universities themselves but a new media corporation’s initiative: Google Books, which

succeeded in one of [Google’s] largest strategic goals: to change the *habitus* of both scholarly and popular reading and to make the digital fully capable of becoming a true representation of the historic past, itself one of the major goals of all humanities research and writing. (p. 149)

The question of the humanities’ public reach and (f)utility has been a persistent pressure-point since at least as early as J.H. Plumb’s *The Crisis in the Humanities* (1964), and certainly in the internecine political debates following the publication of Michael Bérubé and Cary Nelson’s seminal collection, *Higher Education under Fire: Politics, Economics and the Crisis of the Humanities* (Routledge [1995]). Gardiner and Musto see the current crisis, ‘exposed but not created by the digital’, as the product of an eroded social contract or *commons* (p. 172): only by re-establishing the social contract can humanities scholarship regain its traditional position within the wider *habitus*. The DH can play a central role in this process of rehabilitation and restitution, in their transformative approach to the objects of traditional enquiry. For instance, digitization projects can ‘transform the traditional notion of the critical edition, bound to the fixity of print, and return to a more fluid understanding of the text as it was for medieval and early modern scholars’ (p. 49). More generally, large

digital corpora that allow the sources to ‘speak for themselves’ can displace ‘the gendered male overvoice of the monograph’, offering up in its place multilayered, polyphonic digital artefacts that ‘can be seen as a form of “liberation” from the male monograph’ (p. 137).

Similarly, the collaborative nature of digital publishing can also displace the top-down hierarchy of the lone ‘great scholar and his circle of assistants’ (p. 138). Within this context, the authors propose the exposition of a ‘new digital grammar and rhetoric to accommodate this new digital form of representation’ (p. 19), which accommodates and adapts *studia humanitatis* for the twenty-first century,

Notwithstanding the potential of the DH to reconnect scholars with Petrarchan/pre-Rankean humanistic paradigms, Gardiner and Musto remain attentive to the risks that come with new digital modalities, particularly the tendency towards the objectification and abstraction of humanistic endeavour, which might potentially alienate scholars from their own work. On the one hand, renewed emphasis on the text as an object of digitization may both return us to more traditional notions of text as autonomous subject/unique object. On the other hand, the aggregation and disaggregation produced by such digitization of the textual object ‘robs it of this very uniqueness’ (p. 33). To ameliorate such risks while attempting to reframe those longstanding humanistic goals, the authors outline two challenges that face the DH. Firstly, digital humanists must build a comprehensive system of scholarly communication, a ‘cyberinfrastructure’, which ‘bring[s] together all the disparate and excellent resources already created’ in order to facilitate ‘the work of individuals, publishers, learned societies and all institutions of higher learning in the humanities, investigating and answering questions from the most specialized research focus to the broadest public interest’ (p. 168). Secondly, the digital humanist must seek to democratize this cyberinfrastructure, in order ‘to provide frameworks that permit all scholars to take advantage of the available tools in their research fields’ (ibid.).

Gardiner and Musto's concern with the possibilities and challenges facing the DH also forms the spine of Judith Thompson Klein's *Interdisciplining Digital Humanities: Boundary Work in an Emerging Field* (UMichP [2015]). Given their imbrication of technology and humanities, Klein posits the DH as a performed interdiscipline, a growing international movement and a putative revolution beset by limitations. Setting aside prior conceptualizations of the DH as a disciplinary space or fluid organism, Klein's preferred model is that of an *ecology* that combines both the spatial and organic systems. The study is itself presented as an interdisciplinary triangulation of three analytical approaches: the historiographical (drawing on Foucault), the sociological (by way of Bourdieu) and the rhetorical (after Becher). Klein (pp. 17–22) identifies three boundaries that frame the interdisciplinary dynamics of the DH: methodological vs theoretical interdisciplinarity; instrumental vs critical interdisciplinarity; and the role of transdisciplinarity. For Klein, transdisciplinarity in particular offers a persuasive critical framework for interpreting the DH: 'The connotation of a new paradigm appears in Digital Humanities in arguments that "the digital" is not simply one more new field but an overarching framework that remakes all disciplinary research and education' (p. 21). Building on a Nuffield Foundation study from 1970, she observes that transdisciplinarity in the DH can operate in one of two ways: either it can build bridges between humanities and technology in the interest of cultural heritage, history and tradition; or, through restructuring existing disciplines, it can refigure humanities by introducing new technologies, methodologies and information systems.

A necessary condition for interdisciplinarity is what Klein identifies as *interprofessionalism*, cooperation between multiple disciplinary experts—a dynamic that perhaps more accurately represents current collaborations within the DH than the concept of interdisciplinarity. In framing the history of interdisciplinarity, Klein again picks out the transformation from the Renaissance liberal arts tradition, to the Enlightenment shift towards

empiricism and thence institutionalization from the nineteenth century. Such disciplinary specialization was ameliorated somewhat by the emergence of *critical interdisciplinarity* in the later twentieth century of integrative/synthetic approaches such as Marxism, structuralism, feminism, black studies, semiotics, cultural history and media studies: ‘Viewed as part of this history, Digital Humanities is both a hybrid specialization and a set of cross-fertilizing practices’ (p. 24). The DH manifest both ‘integrative’ tendencies, in their formation of an identifiable field through a mature *habitus* (a recognized canon, journals, organizations, research centres), and ‘disintegrative’ tendencies, predicated on the function of the DH as servitor or transformer of the established humanities. As such, the DH operate as a liminal set of practices, given that

no single practice can metonymically represent Digital Humanities. Nor does it exist in a single space. It is located within disciplines, their subfields, and alternative practices. The field is multidisciplinary in scope. It is interdisciplinary in integrative and collaborative practices. It is transdisciplinary in a broad-based reformulation of humanities that places technology and media at the heart of research and teaching, and in embedding critique in all practices and engaging the public sector. (p. 32)

Klein points to three trendlines in the trajectory of the DH: visualization, spatialization and a computational turn. The first two have enabled humanists to interpret artefactual datasets at exponentially greater magnitudes (as lionized in Moretti’s model of distant reading), thus yielding new understandings of the humanities. The last development signals a crucial epistemic change in *studia humanitatis*, which has centred in particular on the study of code not simply as a neutral heuristic, but as a construct shaped by and capable of ideological work (pp. 63–4).

The role of institutionalization within the DH ecology is central to such scholarly labour: in particular, research centres function as a critical ‘third space’ within the academic

ecology, having played a crucial role in ‘fostering ties critical to the life of a community’ (p. 79) through a ‘laboratory model of the humanities’ (p. 83). Nevertheless, the centre model has brought its own challenges, principally those of sustainability and preservation of content, but also those of perception. Furthermore, the DH can often be seen in instrumental ways within academia, generating a tension between service and research, which threatens to marginalize DH practitioners as vulnerable and under-regarded: ‘If the mantra in real estate is location, location, location, in Digital Humanities it is infrastructure, infrastructure, infrastructure. [...] The cyberinfrastructure of tools, technologies, and methodologies needed for Digital Humanities, however, remains inadequate’ (p. 96).

One potential solution is to encourage ‘bottom-up’ dissemination of humanistic work by leveraging Web 2.0 platforms such as Twitter, blogs and other non-traditional forms of scholarship: ‘As research is being shared increasingly through social media, [...] the lines between professional expert and amateur blur in an expanded form of distributed knowing and decentering of authority’ (p. 104). In order to work effectively within the DH, Klein argues, scholars must negotiate a shared knowledge base while pushing towards a ‘deep interdisciplinarity’ that ‘requires experts to adopt new media and modes of communication, learning to speak new hybrid languages, having an experimental attitude, being willing to learn from experience, and flattening hierarchy in project management’ (p. 142). More fundamentally, education policymakers must find ways of rewarding collaboration and acknowledging the value of the *processual, iterative* nature of DH research, which often requires the regular revisitation and updating of research outcomes. Of course, the challenge is that this model is significantly different from the post-Rankean *output*-focused model of monographs, journal articles and conference proceedings that still dominates higher education.

Interdisciplinarity also forms as a core feature of Douglas Eyman's *Digital Rhetoric: Theory, Method, Practice* (UMichP [2015]), which classifies rhetoric as both 'location and scholarly identity' (p. 2). Eyman begins by considering the longer tradition of rhetoric from antiquity to the present day, noting that 'rhetoric is both an analytical method and a heuristic for production', which 'can be structured as a kind of meta-discipline' (p. 12). Chapter 1, 'Defining and Locating Digital Rhetoric', identifies three key components of classical rhetoric: *logos* (logical argument), *pathos* (emotional appeal) and *ethos* (the speaker's authority). Modern rhetorical models, influenced by theorists such as Foucault, Bakhtin, Derrida and Kristeva, posit that 'knowledge arises through argument (persuasive rhetoric) within communities that share assumptions and beliefs' (p. 16). Eyman distinguishes the usefulness of rhetoric to the DH in three ways:

at the level of theory, it allows for the use of and alliance with other fields not typically associated with printed text or speech; it prompts a critical view of current rhetorical theories and methods and opens up the question of whether new theories and new methods can or should be developed; and it provides the boundary condition necessary for the emergence of a new field of study. (p. 17)

Eyman's formulation of the terms *rhetoric*, *digital* and *text* in his study is at once capacious and slippery, suggesting both the possibilities and limitations of his approach. He builds on George Landow's foundational proposition that hypertext embodies or instantiates Barthes's model of the individual text as the centre of a network (*Hypertext: The Convergence of Contemporary Critical Theory and Technology* (JHUP [1992])). Eyman's 'digital rhetoric' extends Landow's theory of the networked hypertext as both an analytic and a heuristic for creating persuasive communicative networks enacted via new forms of media and distribution. Significantly, 'digital texts require not just an updating of traditional theory but the development of new rhetorical theories and methods designed to specifically account for

the features of digital texts’ (p. 36). For Eyman, the originary discipline of the humanities *is* rhetoric, yet rhetoric seems to have lost its distinct identity as a discipline and is often overlooked in the humanities: the DH offer an opportunity to address this (p. 59).

Chapter 2, ‘Digital Rhetoric: Theory’, positions digital rhetoric ‘as a field that engages multiple theories and methods rather than as a singular theory framework’ (p. 61). Building on classical (particularly, Ciceronian) rhetoric’s focus on *production*, the chapter identifies five key components in digital rhetoric (pp. 68–74):

1. *invention* leads to new kinds of text, new forms of meaning, new practices of production and even new institutions;
2. *arrangement* is typically a formal system of organization that marks each part of speech based on its purpose, and can be seen as an emergent feature of digital texts (for example, in the process of ‘tagging’, in the erosion of distance between producers and users, in remix culture);
3. *style* is equivalent to design for digital rhetoric (for example, colour, font styles, layout, multimedia affordances);
4. *memory* can be configured through Foucauldian ideas of the archive and through metadata tagging, primarily not as storage but as persistence of cognition, as bricolage—making memory an activity (in the classical sense) rather than just a repository;
5. *delivery* in the digital needs to take account of performance (particularly with regard to multimedia work).

Building on these classical canons of rhetoric, Eyman turns to the issue of *embodiment* within the digital space, observing (as a number of other studies examined in this chapter have) that ‘the body—especially in digital form—is a discursive formation that resists the dissociation of the physical and the virtual’ (p. 78). In classical rhetoric, identity was intrinsically linked

to the rhetor's presence to generate ethos; in the digital age, ethos continues to operate despite the absence of a physical identity. This becomes particularly complex, as the user's online identity is not necessarily arbitrated by the user but by those who develop the technologies or platforms that consequently assign limits to what a user can or cannot do.

The *habitus* of the online rhetor is the network (an extension from the civic space of the classical era), which through its affordances and constraints mediates rhetorical situations, facilitates rhetorical ecologies and impacts on the formation of digital identity. Eyman's study suggests that

[t]his notion of information ecologies does two things particularly well: it shifts from technology as tool to technology-in-use (that is, activity can be seen as a synergistic relationship between digital media/technologies and human actors) and it focuses the lens of inquiry on a finite context (which is useful for the development of research methods). (p. 88)

If *ecologies* represent the contexts of circulation, *economies* represent the mechanisms that motivate circulation, primarily through a Marxian model of production, distribution and exchange recalibrated in the digital context through Bourdieu's categories of *cultural* and *social capital*: 'The production of digital objects endows them with use-value, but the motivation for production is grounded in subjective exchange-value that is garnered through the distribution and publication (and ultimately circulation) of the texts' (p. 92).

Chapters 3 and 4 apply Eyman's rhetorical theories to 'Method' and 'Practice' respectively. Digital rhetoric must account for the complications generated by the affordances of digital practices, and can leverage both close and distant reading models. Composition continues to engage multiple modes and media as acceptable forms, with the digital world stimulating 'an epistemological shift'

from a view of the solitary writer who has available only limited material means of production and often no recourse to distribution or circulation of the work, to a view of composition as a collaborative activity that engages multiple means of production and that occurs within digital networks that provide broad opportunities for publication and circulation. (pp. 95–6)

Writing is a technology, so the teaching of writing is part of a technological system with which students interact as users, and research into digital writing must adopt a ‘cyborgian’, networked view of human communications. Old methods cannot be applied to new events or practices, but require, in the words of James Porter, ‘a new way of looking altogether’, an approach that ‘acknowledges the hybrid, symbiotic relationship between humans and machines’ (in H. Mckee and D. DeVoss, *Digital Writing Research* (Hampton P [2007]) pp. xv–xvi).

These transformations mark a broader reconstitution of the production of knowledge, a phenomenon that forms the basis of Eric T. Meyer and Ralph Schroeder’s *Knowledge Machines: Digital Transformations of the Sciences and Humanities* (MITP [2015]). Studying a number of projects based in the sciences, social sciences and humanities, the authors consider ‘how networked technologies have changed the ways we consume knowledge’ and ‘reconfigured the ways that knowledge is generated’ (p. 2), in the form of *e-research* generated by *knowledge machines*. Hitherto scantily examined, e-research ‘requires not just new tools and organizational structures but also changes in researchers’ everyday practices’ (p. 15), as emergent research technologies reshape the topographies of scholarly research: ‘Although efforts to establish e-infrastructures or cyberinfrastructure are important, many scholars are likely to become or to have become e-researchers accidentally or unwittingly’ (p. 126). The authors locate research styles and technologies in the algorithmic (that is, mathematical) processes of the computational turn: ‘e-research uses networked computing

(digital tools) to manipulate digital data by means of calculations—algorithms to produce knowledge’ (p. 26), resulting in an increasing ‘scientization’ of even those less cumulative disciplines such as the social sciences and humanities (p. 34). Meyer and Schroeder are careful to avoid technological determinism, positioning these research technologies within their historical and sociological contexts as they diffuse into their users’ *habitus* and transfer knowledge across discrete disciplines. Instead, they adopt a ‘social informatics’ perspective, which stops short of full-blown Latourian social constructivism:

This approach reinforces the notion that researchers are not uncritical ‘users’ of technology but actors within professional and personal networks of people and technologies. [...] Technological frames, for social construction of technology theorists, are built up around technological artifacts as interactions among members of a relevant social group converge and move in a similar direction. (pp. 36, 39)

These complex algorithmic paradigms are not restricted to the research environment alone, but are increasingly affecting public life (for example, Wall Street trading), while more personal domains are at least partly controlled by algorithms (for example, Amazon’s buying choices, the music service Spotify’s recommended tracks, Facebook advertisements). The authors employ a range of case studies and quantitative data to trace the contours of e-research over the last twenty years. Humanities lag far behind: publications in sciences fields make up nearly half of the data, while social sciences are 10 per cent and humanities just 5 per cent. Nevertheless, e-research is on an upward trajectory within the humanities: a 2009 survey of 426 humanities scholars conducted by one of the book’s authors reported that 83 per cent of respondents described themselves as enthusiasts or advocates of the DH, while only 3 per cent saw themselves as sceptics (p. 148). New questions are being enabled in the humanities through digital technologies: a *culturomics* study by Harvard scholar Jean-Baptiste Michel and his colleagues utilized the digitization of more than five million works

(about 4 per cent of all printed books) by the Google Books project. Spearheaded by the DH, culturomics is being claimed as an emergent science providing new taxons of evidence in the humanities based on treating humanities artefacts as computational data, particularly with the current focus on so-called big data (for a more detailed consideration of this, see Christine L. Borgman's *Big Data, Little Data, No Data: Scholarship in the Networked World* (MITP [2015])). This scientific approach is complemented by literary approaches that build on quantitative methods championed by Franco Moretti's *Distant Reading* (Verso [2013]) and Matthew L. Jockers' *Macroanalysis: Digital Methods and Literary History* (UillinoisP [2013]). Naturally, questions have been raised about the absence of interpretative specialization in the DH found in more traditional humanities approaches, as well as about reliability of Google Books data. Meyer and Schroeder see such scepticism more as a struggle for 'disciplinary turf' in the wake of an incursion by scientific methods into cultural and literary hermeneutics, and argue that traditional and computational approaches should be seen as complementary rather than oppositional (p. 154).

There is, in fact, more at stake than academic practice with regard to knowledge production: 'the broader concern of whether private companies with this type of data are able to do more powerful research than academic social scientists' (p. 145). It is the search engines that now 'shape online visibility, which, combined with competition for limited attention space at the leading edge of research [...] leads to a different model of how access to knowledge and information is being shaped' (p. 158). Moreover, the algorithms that Google and other search engines employ remain hidden to end-users, reducing transparency. This, combined with increasing public access to research via the internet, particularly through the open access movement, means that the traditional role of scholars as the gatekeepers of knowledge is in danger of being eroded, which returns us to previous considerations about the 'crisis' of the humanities. These challenges are permeating not just academic discourse,

but are now being disseminated in recent works aimed at the general reader, among them Pedro Domingo's *The Master Algorithm: How the Quest for the Ultimate Learning Machine Will Remake Our World* (Allen Lane [2015]), Andrew Keen's *The Internet Is Not the Answer* (Atlantic Books [2015]) and Bruce Schneier's *Data and Goliath: The Hidden Battles to Collect Your Data and Control Your World* (Norton [2015]).

The challenges and possibilities facing the humanities in the digital age occupy Patrik Svensson and David Theo Goldberg's *Between Humanities and the Digital* (MITP [2015]), a compendious collection of thirty-five essays divided into three sections: 'The Field of Digital Humanities', 'Inflecting Fields and Disciplines' and 'Knowledge Production, Learning, and Infrastructure'. The editors argue that

the reach of digital media proves the potential to engage a far broader range of publics, while in turn challenging humanists to become more self-reflexive about how to represent their own work in more publicly accessible ways without necessarily compromising the quality or criticality of their work. (p. 6)

Rather interrogative and invocational than declarative, the volume's pithy essays offer nuanced and compelling perspectives that locate the DH within the wider intellectual context.

Alan Liu and William G. Thomas III's essay, 'Humanities in the Digital Age', suggests that humanists must take action to shape the humanities' long-term digital future or they will cede the opportunity and have their digital infrastructure built for them. The essay is a call to arms that focuses on the role of the public scholar who follows in the tradition of Petrarch and Erasmus by leveraging the affordances of the digital age: 'The coin of the realm in the digital age, we predict, will be service to society. [...] the digital humanities could help create next-generation scholarly platforms that integrate public engagements seamlessly with core research and teaching' (p. 39) By contrast, Ian Bogost's 'Beyond the Elbow-Patched Playground' reads our post-Humboldtian university system as in danger of ossification,

suggesting that ‘[t]he humanities needs more courage and more contact with the world *in addition* to a continued commitment to removed reflection’ (p. 124). Taking a somewhat technologically deterministic position, he argues that humanists need to be more active in taking control: ‘the digital humanities more frequently adopt rather than invent their tools. [...] As a result, digital humanities projects risk letting existing technologies dictate the terms of their work’ (p. 127). More optimistically, Cathy N. Davidson (‘Why Hack Needs Yack (and Vice Versa)’) identifies ‘a paradigm shift about what constitutes “computation” and what counts as “human and social life.” It means rethinking such binaries (implicit in the two cultures divide) as production and consumption’ (p. 133). As the work of scholars such as Henry Jenkins has shown, we now live in an increasingly participatory, connected world, which requires closer imbrications between digital practice and theory in a new collaborative modality. What is needed, according to Davidson, is an ‘open, bazaar-like architecture’, which inverts the Kantian/Humboldtian model of the university that currently privileges hyper-specialists: ‘Digital humanists can make a leadership role in championing new modes of technology invention, adaptation and dissemination within and across disciplines, in research and in the classroom’ (p. 143).

A recurrent trope in Svensson and Goldberg’s collection is the emphasis on the *materiality* of the digital: unlike earlier formulations of the DH, which suggested an immanent virtual world, the emphasis on materiality inflects a recent phase of DH scholarship, aligning it more closely with fields such as the history of the book. One of the key areas of enquiry for the DH in recent years has been remix culture as the characteristic creative modality for the digital age—most notably in Lawrence Lessig’s study-cum-manifesto, *Remix: Making Art and Commerce Thrive in the Hybrid Economy* (Penguin [2008]). Using the film theory of Sergei Eisenstein and the architectural analysis of Elizabeth Grosz, Jenna Ng’s ‘The Cut between Us: Digital Remix and the Expression of Self’ reads

digital remix culture by way of the ‘in-between’ as the place for becoming. Like Eisenstein’s pioneering use of the montage, remix ‘relies on a certain friction in the space between texts for their creative energy’ (in Svensson and Goldberg, p. 222). Ng examines a range of popular mashups on social media sites like YouTube, pointing out that the viewers’ understanding of these pieces emerges, not from the connections between sources, but the *cuts*—violent collisions and contrasts that generate ironic valency through the discourse of remix.

In contrast to Ng’s essay, Elizabeth Losh’s ‘Utopian Pedagogies: Teaching from the Margins of the Digital Humanities’ suggests an alternative approach to new media artefacts:

It may [...] be a mistake to assume that supposedly subversive remix pedagogies automatically spur practices of democratic inclusion and egalitarianism, or that the aesthetic forms generated by participatory video editing and compositing practices are necessarily unproblematic. (p. 434)

Instead, Losh proposes ‘a radical suggestion’: ‘let’s use digital humanities tools notably for remix pedagogy but also for unmix pedagogy’. For instance, students could be presented with mashups without explanation and asked to unpack all of the visual references the footage contains (p. 435), either on their own or collaboratively. Drawing on William Morris’s pronouncement, ‘You can’t have art without resistance in the materials’, Bethany Nowviskie’s ‘Resistance in the Materials’ examines how a degree of happy resistance enables DH practitioners to craft new scholarly models by moving *through* disciplines by way of a productive friction akin to that outlined by Ng. Nowviskie identifies three ‘crucially important’ converging factors in humanities computing today: ‘the massive, rapid and inexorable conversion of the material cultural inheritance to digital forms’ (p. 386); ‘*tacit knowledge exchange* in code-craft and digital humanities collaboration [that] contributes to a

new hermeneutic, a new way of performing thoughtful humanities interpretation' (p. 387); 'the rise of casual and alternative academic labor' (p. 388).

Amy E. Earhart ('The Digital Humanities as a Laboratory') advocates the fostering of a 'neutral space in which collaboration might occur': 'If we think about the boundary object as related to space and place, and of neutral spaces as crucial to such shared work, then the laboratory model emerges as one that could allow us to foster an equitable collaboration' (p. 397) However, like Nowiskie, she points out that the current humanistic *habitus* limits new forms of collaborative labour, thereby disincentivizing DH practitioners because of the continued dominance of the lone-scholar models of monograph and individual authorship. At the same time, it is incumbent on humanists to acknowledge the endemic power structures and tendencies within digital culture, something which can be often overlooked in the celebrations of the emancipatory power of the digital. A powerful reading of this is supplied in Jennifer González's 'The Face and the Public: Race, Secrecy, and Digital Art Practice', whose examination of race, digital practice and social media argues that 'the other of the public' is not the private but the hidden, grounded in the unknown/unknowable as both an object of desire and fascination and a threat to public coherence, subject to a Foucauldian monitory praxis:

Revealing secrets is one of the goals of publicity, but producing secrets is another one. Power resides in what people conceal as well as what they reveal, whether as part of the hegemony or of the subaltern classes. Race and other forms of cultural difference have been presented as secret unknowns that require definition, mapping, measuring, and legislating by those in power in order to render them public. [...] The philosophical imperative for a homogeneous universal subject, without racial or cultural specificity, who might therefore properly participate in a neutral public sphere can be seen as a demand for subjects not only to reveal their secrets but also to

find ways to live without them, in other words, to find ways not to be disturbing. (p. 454)

Svensson and Goldberg's collection wraps up with a 'Provocation' by the leading theorist of technogenesis, N. Katherine Hayles. She suggests that we are entering a new era ushered in by the networked devices and computational media embedded ubiquitously in our everyday environments, marking the emergence of a 'cognitive nonconscious':

automated cognition increasingly operates within deep technical infrastructures that are enmeshed and enwebbed with human cognition and human life. To rise to the challenges, opportunities, and problems this situation creates, the humanities must broaden their traditional concepts of meaning to include nonconscious cognition, with all of [the] implications and consequences nonconscious cognition poses. (p. 506)

The relationship between human consciousness and the cognitive nonconscious will fundamentally transform the operation and relevance of the humanities in our present digital world. Once again, these preoccupations are no longer restricted to the coterie world of academic discourse, as reflected by the recent publication of a number of (quite alarmist) titles aimed at a general readership: Nicholas Carr's *The Glass Cage: Where Automation Is Taking Us* (Bodley Head [2015]), Martin Ford's *The Rise of the Robots: Technology and the Threat of Mass Unemployment* (Oneworld [2015]) and Evgeny Morozov's *To Save Everything, Click Here: Technology, Solutionism, and the Urge to Fix Problems that Don't Exist* (Penguin, [2014]).

Rebecca Ann Lind's *Produsing Theory in a Digital World 2.0: The Intersection of Audiences and Production in Contemporary Theory* (Peter Lang [2015]) is a considerably sleeker volume than Svensson and Goldberg's, but it nonetheless offers the reader a number of stimulating provocations. The book follows up Lind's identically titled collection (less the '2.0') of 2012, which drew upon Axel Bruns's term *produsage*—'the collaborative and

continuous building and extending of existing content in pursuit of further improvement' (*Blogs, Wikipedia, Second Life, and Beyond: From Production to Produsage* (Peter Lang [2008]) p. 21). Bruns's *produsage* has much in common with Henry Jenkins's *prosumption*, which unites producers and consumers within the new media landscape of participatory culture, 'as participants who interact with each other according to a new set of rules that none of us fully understands' (*Convergence Culture: Where Old and New Media Collide* (NYUP [2006] p. 3). Lind's point of departure for produsage is a combinatory one that imbricates Berger and Luckmann's social constructivism, Bourdieu's *habitus* and Dreier's theory of situated participants in social practice. The sixteen essays that make up the collection examine produsage as it manifests in a variety of digital fields, from internet governance to videogaming, from adolescent identity formation to subaltern identities within digital geopolitics.

The online produser community incubated within the internet is read in heterogeneous ways by the volume's contributors. Thomas Lindlof's 'The Interpretive Community Redux: The Once and Future Saga of a Media Studies Concept' traces a shift from vertical unidirectional model of pre-digital media production to a recursive horizontal rhizome of digital produsage. Revisiting the 'interpretive community' theories pioneered by Stanley Fish and Janice Radway in the 1980s, Lindlof suggests we can read digital culture by focusing on 'the dynamic interplay between types of texts, or the paths by which users move into, through, and out of the discursive space, with the attendant possibilities for growth, mutation, and/or transformation of interpretive strategies' (p. 34). Web 2.0 brings both affordances and constraints, as digital networks enable people to share interpretive strategies that accelerate previous media-sharing paradigms while encouraging more writerly engagements.

Less optimistic about such developments are Philip M. Napoli and Jonathan A. Obar, whose 'The Mobile Conversion, Internet Regression, and the Repassification of the Media

Audience’ begins by tracing the shift from screen- to mobile-based network computing. The authors view this transition as ‘an evolutionary regression across some key dimensions’ (p. 126), as the increasing predominance of mobile forms recalibrates the computing device away from an active tool for information creation and dissemination towards a device geared for information retrieval. The risk has consequences for digital enfranchisement:

the next generation of Internet users seems likely to be significantly underskilled relative to the previous users and therefore less equipped to engage in the same degree of active, sophisticated information seeking and independent content creation and dissemination as the previous generation. (p. 135)

Once again, academic research has been flowing outwards towards the general public in various technodeterminist studies that explore the effects of digital culture on human cognition and expressivity. Perhaps the most (in)famous is Nicholas Carr’s *The Shallows: How the Internet Is Changing the Way We Think* (Atlantic [2010]), but more recent studies continue this trend, among them: Naomi Baron’s *Words Onscreen: The Fate of Reading in a Digital World* (OxfordUP [2015]) and Susan Greenfield’s *Mind Change: How Digital Technologies Are Leaving Their Mark on Our Brains* (Rider [2015]). Less anxious than these studies, Lind’s volume emphasizes that the effects of produsage on our digital lives can often accrue cumulatively rather than transformationally: as Annette N. Markham notes in ‘Produsing Ethics [for the Digital Near Future]’, ‘although ethics certainly shape activity, they also emerge continually from everyday activities, including the actions of social code, computational algorithms, human behaviors, design, and materiality’, functions which ‘work at the epistemological level—not merely reflecting but making social realities’ (in Lind, pp. 249, 250).

The dominance of social media as the current internet paradigm also offers opportunities to consider more active online engagements than those proposed by Napoli and

Obar. John V. Pavlik's 'Understanding the Popularity of Social Media: Flow Theory, Optimal Experience, and Public Media Engagement' leverages *flow theory* as 'a compelling theoretical foundation for understanding *why* people like to use social networking media' (p. 92). *Flows* describe positive, purposeful mental states that lead individuals into highly immersive, focused and absorbing activities, in which the emphasis is on process rather than object. 'Two hallmarks of the flow experience, particularly deep or intense flow, are (a) feeling of spontaneous joy or possibly rapture and (b) an altered sense of time' (p. 93), yielding an almost transcendental or harmonious experience. In Pavlik's holistic model, readings of flow theory hinge 'on the potential for individuals to use those networking tools to participate in or feel connected to something larger than themselves' (p. 101).

In contrast, an area of popular curiosity and anxiety is the 'darknet' or 'deep web', which has recently been examined by alarmist publications such as Jamie Bartlett's *The Dark Net* (Windmill [2015]) and Marc Goodman's *Future Crimes: A Journey to the Dark Side of Technology* (Corgi [2016]). Jeremy Hunsinger's essay, 'Producing the Hidden: Darknet Consummativities', considers darknets in a more nuanced way, exploring these hidden social communities through a model of *consummativity*, as defined by Baudrillard:

needs [...] are better defined as a function induced (in the individual) by the internal logic of the system: more precisely, not as a consummative force liberated by the affluent society, but as a productive force required by the functioning of the system itself, by its process of reproduction and survival. (*For a Critique of the Political Economy of the Sign* (Telos [1981]) p. 82)

As a result, consummativity generates both identification and alienation in the subject's desires/needs, such that, in Hunsinger's words, 'the quasiobject that is produced is always partly the producer's alienated identity' (in Lind, p. 57). Hunsinger's argument 'resists the simple construction of criminality and exceptionalism found in popular press understandings

of darknets', focusing instead on their function as sites of knowledge sharing, information provision and economic value creation. Darknets are typically formed for reasons of privacy, security and economic value, rooted in the needs and desires of their producers. The criminality and political subversiveness of darknets, argues Hunsinger, are primarily mythogenetic, serving a necessary legitimating function as knowledge-produsage spaces for their members, with 'hiddenness' as one of the consummativities created by darknet producers (p. 61). Hunsinger points out that an underlying paradox drives many darknets, whose producers see themselves as apart from capitalist structures, while having their needs shaped by the semiotics of capitalism. This mechanism pivots on the consumption of privacy:

The limits of our political imagination are exemplified by the tendency to assume that privacy is only a right. But in our liberal society, there is an assumption that many are extremely wary of making about privacy: privacy may be a right, but it is also a consumer good. [...] Although privacy is projected as a public good, privacy in our neoliberal economy only has value where it is traded or consumed. (p. 70)

Such self-selecting 'hiddenness' finds its inverse in the marginalized/disregarded digital subjects who feature recurrently through this collection. Coverage in the volume ranges from the construction of adolescent identities in Bradley W. Gotham and Jaime R. Riccio's chapter, to Ella McPherson's study of the challenges faced by journalists when verifying digital human rights reporting by civilian witnesses. Radhika Gajjala, Dinah Tetteh and Anca Birzescu's 'Staging the Subaltern Self and the Subaltern Other: Digital Labor and Digital Leisure in ICT4D' examines information and communication technologies for development (ICT4D) as they cohere around postcolonial subaltern identities. In the Web 2.0 context, the subaltern is produced via layers of mediation, 'staged through online textual and visual formats, projecting an image of an empowered individual or group previously excluded or marginalized' (p. 160) Examining two recent microfinance platforms, the authors

identify how different rhetorical constructions of the subaltern operate, noting that ‘Web 2.0 spaces that appear to break down barriers between the poor and the not-poor are still reinscribing colonial hierarchies’ (p. 162) In particular, internet architecture can be seen to ‘informationalize’ the individual human narratives of marginalized bodies through data mining and coding for/by a Western audience. In cognate terms, Kishona L. Gray’s ‘Race, Gender, and Virtual Inequality: Exploring the Liberatory Potential of Black Cyberfeminist Theory’ interrogates the endemic power structures black women encounter in virtual spaces, observing that the ‘assumed White masculine body [of the internet] excludes women and people of color; the mere presence of their bodies marks them as deviant in these spaces’ (p. 185). Having interrogated the limitations of earlier theories of emancipatory cyberfeminism and binaristic technofeminism, Gray proposes a theoretical model that is more relevant to black women’s digital lives, one filtered through the intellectualism of black liberation movements grounded in a ‘knowledge of self [that] propels one to the realization of liberation’ (p. 183). Looking at online phenomena such as #BlackLivesMatter and Mikki Kendall’s iconoclastic use of social media within the feminist community, Gray’s model of black cyberfeminism builds on three core concerns: social structural oppression within technology and virtual spaces, intersecting oppression experienced in virtual spaces and the distinctness of the virtual feminist community.

The global permeation of social media has received increasing attention in recent years. In particular, Sherry Turkle’s *Alone Together* (Basic Books [2011]) and *Reclaiming Conversation: The Power of Talk in a Digital Age* (Penguin [2015]) have offered cautionary tales to the general reader about the implications of digitalization for our everyday lives, online and offline. A more (cautiously) optimistic response was offered by Nancy K. Baym’s *Personal Connections in the Digital Age* in 2010, now revised and updated in a second edition (Polity [2015]). Baum notes that new media—whether manuscript, print or digital—

have always generated public consternation over their effects on our relationships to ourselves and others. Initially, ‘alien’ media affect the way we perceive the world, society and ourselves, before becoming normalized, and therefore invisible, within social systems. Presently, then, digital media ‘call into question the very authenticity of our identities, relationships, and practices’ (p. 5), mapping the shift from modern to postmodern times: ‘time and space are compressed, speed is accelerated, people are ever more mobile, communication is person-to-person rather than place-to-place, identities are multiple, and communication media are ubiquitous (p. 5). The ‘synchronicity’ of new media and lack of (somatic) social cues online can both enhance the ‘sense of placelessness’ and make distant communicants feel closer than ever before (p. 8).

Baym’s study eschews both technodeterminist and social constructivist models, defining her approach as the ‘social shaping of technology’, a middle way attuned to the reciprocal, mutually constitutive relationships between social agents and technological platforms:

From this perspective, the consequences of technologies arise from a mix of ‘affordances’ [...] and the unexpected and emergent ways that people make use of those affordances. [...] Rather than being deterministic, they see the consequences of technology for social life as *emergent*. (pp. 51, 56)

Baym interrogates the belief that mediated interaction (online) is less ‘authentic’ than face-to-face connections (offline). Rather than a diminishment of embodiment, mediated interactions should be read as new, eclectic modalities that combine face-to-face communication with elements of writing (text, images, multimedia): ‘Instead of asking what mediation *does to communication*, we can also ask what people *do with* mediated communication’ (p. 67). This writerly aspect of mediated communication is important because it acknowledges the importance of audience and address in social media (which leads us back to Eyman’s account

of digital rhetoric, discussed earlier in this chapter). Thus, rather than undergoing dematerialization or disembodiment, gender, sexuality and race persist in the formation of online identities and communication. Baym examines the late modernist shift away from tightly bounded communities towards a *networked individualism*: ‘To the extent that members of different people’s social networks overlap and are internally organized, they may constitute groups, but social networks are egocentric and no two will be identical’ (p. 100). Networked individualism is complemented by *networked collectivism*, through which ‘groups of people now network throughout the internet and related mobile media, and in-person communication, creating a shared but distributed group identity’ (p. 101).

Online relationships can challenge orthodox social behaviours and blur social boundaries (for example, cross-sex friendships, which in some cultures can be perceived as transgressive, are more common online than offline). The separation of identity from the body online also challenges Western essentialism, emphasizing instead the social nature of identity: ‘The affordances of new media open up new possibilities for exploring and representing ourselves and others’ (p. 118). Despite the popularly perceived separation of online/offline identities, Baym argues that the evidence suggests the contrary: we typically maintain continuities between our online and offline selves. At the same time, the relationship between identity and privacy does need modification in light of social media:

most understandings of privacy—as an individual problem of whether or not to share information about one’s self—are ill suited to networked environments where the real problems concern control over how information flows. Privacy is about controlling access to information and the integrity of the contexts in which information was shared, not secrecy. (p. 121)

The counterpart to privacy is the publicness fostered by social media, as ‘[c]ommunicating online to unknown and disembodied audiences is a way to build a public identity, often in

service of “self-branding”, such that ‘[p]eople may be just as concerned with building public identities as with hiding private ones’ (p. 122) However, one key limit is that most social networking systems ‘partially engineer self-presentation by providing predetermined sets of categories through which to build identities’ (p. 125). Such a perspective forms the essence of Jaron Lanier’s *You Are Not a Gadget* (Penguin [2010]), which argues that Web 2.0 technologies curtail human expressiveness and identity, through a ‘cybernetic totalism’. The flattening out of individual creativity at the expense of the crowd (‘the hive mind’) is, for Lanier, a major problem facing twenty-first-century subjectivity:

The central mistake of recent digital culture is to chop up a network of individuals so finely that you end up with a mush. You then start to care about the abstraction of the network more than the real people who are networked, even though the network is by itself meaningless. Only the people were ever meaningful. (p. 17)

Do the affordances of such cybernetically totalitarian systems encourage lying or dishonesty? Baym thinks not, arguing that most typical dissimulations online are those that amplify our positive traits (for example, on dating sites) or perhaps result from a lack of self-awareness: ‘Sometimes being deceptive about presenting one’s ideal self more than a fictitious one’ (Baym, p. 129).

Reputation forms an important aspect of identity, but it is something bestowed by others: online there is no due process, so that people who transgress can be punished in ways far disproportionate to their transgression. (See Jon Ronson’s *So You’ve Been Publicly Shamed* (Pan [2015]) for a recent examination of reputation and notoriety online.) Online relationships are *multiplex* or *polymedial* (conducted across multiple media platforms): ‘In polymedia, we do not simply choose a medium. Media unite to become a single integrated structure of affordances that we exploit in order to manage emotions and relationships’ (p. 158). We must choose the right media as well as the right message in this new ecology, in

which mediated communication functions as ‘a set of tools people use to connect’, each with socially orchestrated meanings imbricated with the daily realities of embodied life. As Baym notes, perhaps the most significant influence of digital media on culture (and on the humanities more generally) is that ‘[d]igital media aren’t saving us or ruining us. They aren’t reinventing us. But they are changing the ways we relate to others and ourselves in countless, pervasive ways’ (p. 177). It would seem that in today’s digital era, it’s the little things that count.

Works reviewed

Baym, Nancy K. *Personal Connections in the Digital Age*. 2nd edn. Polity. [2015] pp. viii + 223. pb £15.99 ISBN 9 7807 4567 0348.

Eyman, Douglas. *Digital Rhetoric: Theory, Method, Practice*. UMichP. [2015] pp. 184. \$75 ISBN 9 7804 7205 2684.

Gardiner, Eileen, and Ronald G. Musto. *The Digital Humanities: A Primer for Students and Scholars*. CambridgeUP. [2015] pp. 273. pb £19.99 ISBN 9 7811 0760 1024.

Klein, Judith Thompson. *Interdisciplining Digital Humanities: Boundary Work in an Emerging Field*. UMichP. [2015] pp. xiii + 201. pb \$30 ISBN 9 7804 7205 2547.

Lind, Rebecca Ann, ed. *Produsing Theory in a Digital World 2.0: The Intersection of Audiences and Production in Contemporary Theory*. Digital Formations, vol. 99.

Peter Lang. [2015] pp. vii + 299. pb \$42.95 ISBN 9 7814 3312 7281.

Meyer, Eric T., and Ralph Schroeder. *Knowledge Machines: Digital Transformation of the Sciences and Humanities*. MITP. [2015] pp. xi + 271. \$40 ISBN 9 7802 6202 8745.

Svensson, Patrik, and David Theo Goldberg, eds. *Between Humanities and the Digital*. MITP. [2015] pp. 574. \$45 ISBN 9 7802 6202 8684.